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ABSTRACT

A large scale study of local norms that are directly related to the interests of military education counselors is described. In a cooperative effort, the U.S. Armed Forces Institute and the Test Department of Harcourt Brace Jovanovich, Inc. normed the Adult Basic Learning Examination (ABLE) and validated its utility in predicting success on the General Educational Development (GED) tests using selected samples of the military population. The data provided are directly relevant to decisions regarding competency in basic skills and those involving the prediction of success on the GED tests. In addition, the data permit counselors to develop performance frames of reference for specific groups within the military population. Military educational counselors can now not only make judgments based on valid information but can initiate programs of action with confidence since the prescribed intervention is rooted in reliable assessment. (Author/RC)

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NORMING OF A BASIC LEARNING EXAM AND ITS USE TO PREDICT GED RESULTS

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SUMMARY

Considerable concern has recently been generated by assertions that deny the utility of tests for counselors. In essence, these concerns are directed at the relevance of tests, test norms, and especially test interpretation in providing counselors with information that is truly useful. If the testing movement is to remain a viable force in the mainstream of counseling, it must satisfy these concerns.

The current investigation describes a large scale study of local norms that are directly related to the interests of military educational counselors. In addition, the prediction data are to be displayed in a format that has been designed with counselors in mind.

In a cooperative effort, the United States Armed Forces Institute (USAFI) and the Test Department of Harcourt Brace Jovanovich, Inc. have undertaken to norm the Adult Basic Learning Examination (ABLE) and to validate its utility in predicting success on the General Educational Development (GED) tests using selected samples of the military population. ABLE is a recently developed achievement battery designed for use with adults. ABLE has three levels, Level I (Grades 1-4), Level II (Grades 5-8), and Level III (Grades 9-12) and each level includes the following tests: Vocabulary, Reading, Spelling, Arithmetic (Computation and Problem Solving).

Military bases were chosen that provided participation by all services and that gave a broad geographical representation. 1990 recruits were tested with a short screening test (SelectABLE) and the appropriate level of ABLE at seven Army, Navy, Air Force, Marine Corps, and SWC training stations. In addition 1383 GED candidates at six Army bases were also administered SelectABLE and the appropriate level of ABLE (II or III only). Each recruit supplied demographic information by completing a questionnaire.

A table of intercorrelations was generated by level among the ABLE subtests, also correlations of ABLE with AFQT, ABLE with GED test scores and GED totals, ABLE with various military Classification Battery scores, and ABLE with SelectABLE. A multiple regression analysis was performed for each of the GED tests using ABLE scores as the predictors. Regression equations were obtained which permit the prediction of GED scores from ABLE performance.

Percentile ranks and stanine norms were obtained on the total military sample for each subtest and total ABLE by level. Means, median, quartiles, and standard deviations were also reported.

In addition separate analyses were undertaken and frequency distributions and/or means, medians, quartiles, and standard deviations were also generated for the following: SelectABLE, educational level, and each of the four services.

The data provided, therefore, are directly relevant to decisions regarding competency in basic skills and those involving the prediction of success on the GED tests. In addition, the data permit counselors to develop performance frames of reference for specific groups within the military population. Military educational counselors can now not only make judgments based upon valid information but can initiate programs of action with confidence since the prescribed intervention is rooted in reliable assessment.

Adult Basic Learning Examination and General Educational Development Test Correlation

ABLE Level III

Tests	Sample Size: 2155-2158						Sample Size: 808-820						Mean	S.D.
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Vocabulary	1	.43	.67	.41	.50	.49	.60	.59	.57	.59	.58	.43	.65	42.1-43.4 7.57-8.27
Spelling	2		.40	.43	.36	.43	.50	.63	.32	.33	.35	.32	.45	22.5-24.7 9.72-10.32
Reading	3			.45	.54	.53	.53	.55	.59	.62	.61	.44	.66	41.1-41.5 7.56-8.89
Arithmetic Computation	4				.74	.94	.53	.43	.35	.36	.31	.67	.48	22.6-24.0 7.70-8.35
Arithmetic Problem Solving	5					.92	.54	.51	.53	.54	.47	.69	.63	25.5-26.3 6.09-6.92
Total Arithmetic	6						.57	.51	.47	.48	.42	.74	.60	48.1-50.2 12.66-14.22
SelectABLE	7							.60	.47	.54	.50	.54	.61	38.5-39.1 3.08-3.59
Correctness and Effectiveness of Expression	8								.59	.64	.64	.56	.79	42.4-42.5 5.85-5.87
Interpretation of Reading Materials: Social Sciences	9									.76	.75	.57	.89	45.0-45.1 8.60-8.64
Interpretation of Reading Materials: Natural Sciences	10										.76	.60	.90	46.8 8.12-8.17
Interpretation of Literary Materials	11											.55	.88	46.1-46.2 7.16-7.17
General Mathematical Ability	12												.76	42.9-43.0 6.15-6.16
GED Total Score	13													223.4-223.5 30.58-30.63

Prediction of the General Educational Development

Test (GED) Performance Using the Adult Basic

Learning Examination (ABLE)

ABLE Level III

GED Test #1 (Correctness and Effectiveness of Expression)			
I	5-predictor model		
	$R^2 = .556$	$R = .746$	Standard Error of Estimate = 3.91
	$\hat{Y} = 21.161 - .091X_1 + .2X_2 + .1X_4 + .252X_5 + .173X_6$		
II	2-predictor model		
	$R^2 = .517$	$R = .719$	Standard Error of Estimate = 4.08
	$\hat{Y} = 24.162 + .278X_5 + .286X_6$		
	X_1 = Total Arithmetic		
	X_2 = Arithmetic Problem Solving		
	X_4 = Reading		
	X_5 = Spelling		
	X_6 = Vocabulary		

ABLE Level III

GED Test #2 (Interpretation of Reading Materials: Social Sciences)			
I	5-predictor model		
	$R^2 = .447$	$R = .668$	Standard Error of Estimate = 6.41
	$\hat{Y} = 11.143 - .148X_1 + .618X_2 + .327X_4 + .026X_5 + .264X_6$		
II	2-predictor model		
	$R^2 = .407$	$R = .638$	Standard Error of Estimate = 6.63
	$\hat{Y} = 14.375 + .419X_2 + .482X_4$		
X_1 = Total Arithmetic			
X_2 = Arithmetic Problem Solving			
X_4 = Reading			
X_5 = Spelling			
X_6 = Vocabulary			

**Prediction of the General Educational Development
Test (GED) Performance Using the Adult Basic
Learning Examination (ABLE)**

ABLE Level III

GED Test #3 (Interpretation of Reading Materials: Natural Sciences)			
I	5-predictor model		
	$R^2 = .501$	$R = .708$	Standard Error of Estimate = 5.76
	$Y = 12.573 + .51X_1 - .682X_3 + .322X_4 + .032X_5 + .261X_6$		
II	2-predictor model		
	$R^2 = .439$	$R = .662$	Standard Error of Estimate = 6.11
	$Y = 14.982 + .426X_4 + .336X_6$		
	X_1 = Total Arithmetic		
	X_3 = Arithmetic Computation		
	X_4 = Reading		
	X_5 = Spelling		
	X_6 = Vocabulary		

ABLE Level III

GED Test #4 (Interpretation of Literary Materials)			
I 5-predictor model			
$R^2 = .447$	$R = .67$	Standard Error of Estimate = 5.33	
$Y = 17.732 - .129X_1 + .398X_2 + .325X_4 + .057X_5 + .231X_6$			
II 2-predictor model			
$R^2 = .424$	$R = .651$	Standard Error of Estimate = 5.44	
$Y = 18.684 + .378X_4 + .28X_6$			
X_1 = Total Arithmetic			
X_2 = Arithmetic Problem Solving			
X_4 = Reading			
X_5 = Spelling			
X_6 = Vocabulary			

Prediction of the General Educational Development
Test (GED) Performance Using the Adult Basic
Learning Examination (ABLE)

ABLE Level III

GED Test #5 (General Mathematical Ability)			
I 4-predictor model			
$R^2 = .56$	$R = .748$	Standard Error of Estimate = 4.08	
$Y = 22.932 + .46X_1 - .207X_3 - .005X_5 + .063 X_6$			
II 2-predictor model			
$R^2 = .555$	$R = .745$	Standard Error of Estimate = 4.10	
$Y = 24.487 + .493X_1 - .234X_3$			
X_1 = Total Arithmetic			
X_3 = Arithmetic Computation			
X_5 = Spelling			
X_6 = Vocabulary			

S A M P L E

ABLE Level III

Charlie Brown's scores:

X_1	= Total Arithmetic	= 31
X_2	= Arithmetic Problem Solving	= 19
X_3	= Arithmetic Computation	= 12
X_4	= Reading	= 36
X_5	= Spelling	= 12
X_6	= Vocabulary	= 34

GED #1 (Correctness and Effectiveness of Expression)	
I	5-predictor model
	$\hat{Y} = 21.161 - .091(31) + .2(19) + .1(36) + .252(12) + .173(34)$
	$\hat{Y} = 35$ Standard error of estimate band = 31.09-38.91
II	2-predictor model
	$\hat{Y} = 24.162 + .278(12) + .286(34)$
	$\hat{Y} = 37$ Standard error of estimate band = 32.92-41.08
GED #2 (Interpretation of Reading Materials: Social Sciences)	
I	5-predictor model
	$\hat{Y} = 11.143 - .148(31) + .618(19) + .327(36) + .026(12) + .264(34)$
	$\hat{Y} = 39$ Standard error of estimate band = 32.59-45.41
II	2-predictor model
	$\hat{Y} = 14.575 + .419(19) + .482(36)$
	$\hat{Y} = 40$ Standard error of estimate band = 33.37-46.63
GED #3 (Interpretation of Reading Materials: Natural Sciences)	
I	5-predictor model
	$\hat{Y} = 12.573 + .51(31) - .682(12) + .322(36) + .032(12) + .261(34)$
	$\hat{Y} = 41$ Standard error of estimate band = 35.24-46.76

S A M P L E

GED #3 (continued)

II 2-predictor model

$$\hat{Y} = 14.982 + .426(36) + .336(34)$$

$$\hat{Y} = 42$$

Standard error of estimate band = 35.89-48.11

GED #4 (Interpretation of Literary Materials)

I 5-predictor model

$$\hat{Y} = 17.732 - .129(31) + .398(19) + .325(36) + .057(12) + .231(34)$$

$$\hat{Y} = 42$$

Standard error of estimate band = 36.67-47.33

II 2-predictor model

$$\hat{Y} = 18.684 + .378(36) + .28(34)$$

$$\hat{Y} = 42$$

Standard error of estimate band = 36.56-47.44

GED #5 (General Mathematical Ability)

I 4-predictor model

$$\hat{Y} = 22.932 + .46(31) - .207(12) - .005(12) + .063(34)$$

$$\hat{Y} = 37$$

Standard error of estimate band = 32.92-41.08

II 2-predictor model

$$\hat{Y} = 24.487 + .493(31) - .234(12)$$

$$\hat{Y} = 37$$

Standard error of estimate band = 32.90-41.10

ABLE Level II

Tests	Variable	Sample Size: N=1274-1307						Sample Size: N=511-541						Mean	S.D.
		2	3	4	5	6	7	8	9	10	11	12	13		
Vocabulary	1	.53	.13	.14	.28	.23	.32	.31	.36	.35	.34	.23	.41	38.7-39.0	6.60-7.27
Reading	2		.20	.12	.11	.22	.34	.36	.34	.34	.35	.18	.40	50.5-50.8	6.17-5.61
Spelling	3			.31	.16	.24	.36	.50	.19	.23	.17	.12	.28	14.2-14.9	9.46-10.34
Arithmetic Computation	4				.58	.89	.33	.31	.29	.25	.25	.45	.39	12.5-12.8	5.25- 5.68
Arithmetic Problem Solving	5					.73	.28	.32	.41	.31	.32	.49	.47	7.1- 7.3	3.43- 3.99
Total Arithmetic	6						.33	.35	.37	.30	.30	.52	.47	19.1-19.9	7.87- 7.99
SelectABLE	7							.41	.32	.36	.34	.27	.42	28.4-28.5	3.53 -4.11
Correctness and Effectiveness of Expression	8								.50	.52	.51	.36	.69	34.8-34.9	4.14 -4.17
Interpretation of Reading Materials: Social Sciences	9								.62	.62	.63	.45	.85	35.0-35.0	7.34-7.48
Interpretation of Reading Materials: Natural Sciences	10										.64	.39	.83	36.8-36.9	6.84-6.89
Interpretation of Literary Materials	11											.36	.82	37.0-37.1	6.59-6.66
General Mathematical Ability	12												.66	34.7	6.19-6.22
GED Total Score	13													178.1-178.6	24.10-24.34

Prediction of the General Educational Development
Test (GED) Performance Using the Adult Basic
Learning Examination (ABLE)

ABLE Level II

GED Test #1 (Correctness and Effectiveness of Expression)		
I	6-predictor model	
	$R^2 = .379$	$R = .616$ Standard Error of Estimate = 3.28
	$\hat{Y} = 21.541 + .055X_1 + .184X_2 - .023X_3 + .178X_4 + .13X_5 + .053X_6$	
II	3-predictor model	Standard Error of Estimate = 3.30
	$R^2 = .371$	$R = .609$
	$\hat{Y} = 21.824 + .272X_2 + .18X_4 + .168X_5$	
	X_1 = Total Arithmetic X_2 = Arithmetic Problem Solving X_3 = Arithmetic Computation X_4 = Spelling X_5 = Reading X_6 = Vocabulary	

ABLE Level II

GED Test #2 (Interpretation of Reading Materials: Social Sciences)		
I	5-predictor model	
	$R^2 = .275$	$R = .524$ Standard Error of Estimate = 6.33
	$\hat{Y} = 10.013 + .067X_1 + .615X_2 + .05X_4 + .237X_5 + .167X_6$	
II	2-predictor model	
	$R^2 = .254$	$R = .504$ Standard Error of Estimate = 6.43
	$\hat{Y} = 11.036 + .812X_2 + .357X_5$	
	X_1 = Total Arithmetic X_2 = Arithmetic Problem Solving X_4 = Spelling X_5 = Reading X_6 = Vocabulary	

Prediction of the General Educational Development
Test (GED) Performance Using the Adult Basic
Learning Examination (ABLE)

ABLE Level II

GED Test #3 (Interpretation of Reading Materials: Natural Sciences)

I 6-predictor model

$$R^2 = .228 \quad R = .478 \quad \text{Standard Error of Estimate} = 6.05$$

$$\hat{Y} = 14.331 + .052 X_1 + .348 X_2 + .008 X_3 + .095 X_4 + .212 X_5 + .174 X_6$$

II 2-predictor model

$$R^2 = .193 \quad R = .439 \quad \text{Standard Error of Estimate} = 6.18$$

$$\hat{Y} = 15.193 + .548 X_2 + .348 X_5$$

X_1 = Total Arithmetic
 X_2 = Arithmetic Problem Solving
 X_3 = Arithmetic Computation
 X_4 = Spelling
 X_5 = Reading
 X_6 = Vocabulary

ABLE Level II

GED Test #4 (Interpretation of Literary Materials)

I 5-predictor model

$$R^2 = .221 \quad R = .47 \quad \text{Standard Error of Estimate} = 5.88$$

$$\hat{Y} = 14.467 + .398 X_2 + .084 X_3 + .034 X_4 + .25 X_5 + .142 X_6$$

II 2-predictor model

$$R^2 = .203 \quad R = .451 \quad \text{Standard Error of Estimate} = 5.95$$

$$\hat{Y} = 15.767 + .546 X_2 + .342 X_5$$

X_2 = Arithmetic Problem Solving
 X_3 = Arithmetic Computation
 X_4 = Spelling
 X_5 = Reading
 X_6 = Vocabulary

Prediction of the General Educational Development
Test (GED) Performance Using the Adult Basic
Learning Examination (ABLE)

ABLE Level II

GED Test #5 (General Mathematical Ability)			
I	6-predictor model		
	$R^2 = .304$	$R = .551$	Standard Error of Estimate = 5.17
	$\hat{Y} = 21.393 + .188X_1 + .434X_2 + .104X_3 - .014X_4 + .059X_5 + .06X_6$		
II	2-predictor model		
	$R^2 = .293$	$R = .541$	Standard Error of Estimate = 5.22
	$\hat{Y} = 26.246 + .27X_1 + .425X_2$		
	X_1 = Total Arithmetic		
	X_2 = Arithmetic Problem Solving		
	X_3 = Arithmetic Computation		
	X_4 = Spelling		
	X_5 = Reading		
	X_6 = Vocabulary		

ABLE Level III Percentile Ranks Based on Unselected Population of Adults 17 Years of Age or Over*

%ile Rank	Vocabulary	Spelling-Reading	Reading-Spelling	Arithmetic Numerical Computation	Arithmetic Problem Solving	Arithmetic Total
99	58-60	46-50	57-60	41-42	42	80-84
98	57	45	55-56	39-40	40-41	77-79
96	56	43-44	54		39	76
94		41-42		37-38	38	74-75
92	55	40	53		37	71-73
90	54	39	52	36	36	70
89				35		69
88	53	38	51		35	68
86	52	37		34		67
84		36	50	33	34	66
82		35		32	33	65
80	51	34	49			64
78				31	32	63
77	50		48			62
76		33				61
74				30		60
72	49	32	47	29	31	59
70		31				58
68	48	30	46	28	30	57
66		29				56
64	47		45		29	55
62		28		27		54
60		27	44	26		
58	46				28	53
56		26			27	52
54	45	25	43	25		
52						51
50			42	24	26	50
48	44	24				49
46		23	41	23		
44	43				25	48
42		22	40			47
40	42	21		22		46

%ile Ranks	Vocabulary	Reading	Spelling	Arithmetic		Arithmetic Total
				Numerical Computation	Problem Solving	
38		20		21	24	45
36	41		39			
34				20	23	44
32	40	19	38	19		43
30	39	18	37			42
28				18	22	41
26		17	36			40
24	38	16				39
23			35	17	21	
22	37					38
20		15	34	16		
18	36	14	33	15	20	37
16	35	13	32		19	36
14	34		31	14		35
12	33	12	30		18	34
11	32		29	13		33
10	31	11	28	12	17	31-32
8	30	10	27	11	16	30
6	28-29	9	25-26	10	15	28-29
4	26-27	8	21-24	9	13-14	26-27
2	24-25	6-7	18-20		12	22-25
1	8-23	1-5	10-17	2-8	3-11	9-21
N	2166	2166	2166	2165	2163	2163
*Norms Established in 1973						
33-75 %-ile	49.6	32.6	47.6	30.2	31.4	60.5
22-50 %-ile	44.2	24.2	42.0	23.9	26.0	49.8
21-25 %-ile	37.9	16.3	35.7	17.6	21.5	39.4
St. Dev.	8.27	10.32	8.91	8.35	6.91	14.22
mean	43.4	24.7	41.1	23.9	26.3	50.2

ABLE Level II Percentile Ranks Based on Unselected Population of Adults 17 Years of Age or Over*

%ile Rank	Vocabulary	Reading	Spelling	Arithmetic Numerical Computation	Arithmetic Problem Solving	Arithmetic Total
99	50	58	38-40	26-30	17-20	40-50
98	49		36-37	24-25	16	38-39
96			33-35	23	14-15	34-37
94	48	57	32	22	13	33
92			31	21		32
90	47		30	20	12	31
89			29			30
88		56	28	19	11	29
86	46		27			28
84			26	18		
82	45		25		10	27
80		55	24	17		26
78						25
77						
76	44		23			24
74			22	16		
72			21		9	
70	43	54	20			23
68			19	15		
66						
64	42		18		8	22
62			17			
60		53		14		
58	41		16			21
56			15			
54			14		7	20
52			13	13		
50	40	52				
48						19
46	39		12	12		
44						
42	38		11		6	18
40		51	10	11		

%ile Rank	Vocabulary	Reading	Spelling	Arithmetic Numerical Computation	Arithmetic Problem Solving	Arithmetic Total
38						17
36	37		9			
34		50	8			
32	36			10	5	16
30						15
28	35		7			
26		49		9		
24			6			14
23	34					
22		48		8		13
20	33		5			
18	32	47			4	
16	31	46		7		12
14		45	4			
12	30			6		11
11	29	44			3	
10	28	43	3			10
8	27	41-42		5		9
6	26	39-40	2		2	8
4	24-25	35-38		4		7
2	22-23	30-34	1	3		6
1	3-21	1-29		1-2	1	2-5
N	1320	1319	1296	1310	1312	1302

* Norms Established in 1973

Q3-75 %ile	44.0	54.6	22.5	16.3	9.2	24.5
Q2-50 %ile	37.8	52.1	12.8	12.5	6.6	19.2
Q1-25 %ile	34.4	48.6	6.3	8.8	4.6	14.2
St. Dev.	6.99	6.42	9.94	5.41	3.44	7.88
Mean	38.7	50.6	14.8	12.7	7.0	19.7

ABLE Level 1 Percentile Ranks Based on Unselected Population of Adults 17 Years of Age or Over*

%ile Rank	Vocabulary	Reading	Spelling	Arithmetic Numerical Computation	Arithmetic Problem Solving	Arithmetic Total
99	50		30	26-27	19-20	42-47
98				25	18	41
96	49			24		40
94		51	29		17	39
92			28	23		38
90			27			37
89	48					
88			26	22		36
86	47		25		16	
84						35
82			24	21		
80		50				34
78	46		23	20	15	
77						33
76			22			
74						32
72			21			
70	45			19	14	31
68						
66				18		
64	44	49	20		13	30
62				17		
60						
58			19			29
56	43		18			
54				16	12	28
52						
50	42	48	17			
48						27
46			16	15	11	
44	41					26
42		47	15			
40				14		25

%ile Rank	Vocabulary	Reading	Spelling	Arithmetic Numerical Computation	Arithmetic Problem Solving	Arithmetic Total
38	40	46			10	
36			14			24
34				13		
32						23
30	39	45	13			22
28	38	44	12		9	
26				12		21
24	37					
23		43	11			
22	36	42		11	8	20
20		41	10			19
18	35	39-40				18
16		37-38	9	10	7	17
14	34	35-36				16
12	33	34	8			15
11	32	33	7			14
10	31	32	6	9	6	13
8	30	27-31	5	8		11-12
6	29	25-26	4	7	5	7-10
4	27-28	23-24	3	5-6	4	
2	24-26	20-22	2	4	3	
1	21-23	3-19	1	2-3	2	
N	222	222	217	221	222	221

* Norms Established in 1973

Q3-75 %-ile	45.6	49.7	22.0	19.5	14.5	32.1
Q2-50 %-ile	41.8	48.0	16.7	15.4	11.4	27.4
Q1-25 %-ile	37.2	43.6	11.5	11.7	8.7	21.4
St. Dev.	6.22	8.16	7.21	5.23	3.81	7.78
Mean	40.9	44.7	16.7	15.5	11.4	26.9

Summary Data for the Adult Basic Learning Examination by Educational Level

ABLE Level III

Education Level 12

N= 602-604

Test	Mean	Median	S.D.
Vocabulary	44.46	45.27	8.09
Spelling	27.26	27.30	10.19
Reading	41.04	42.18	9.74
Arithmetic Computation	25.30	25.40	8.34
Arithmetic Problem Solving	26.81	26.93	7.55
Arithmetic Total	52.13	52.38	14.93

Education Level 13
(1st year college)

N=100

Test	Mean	Median	S.D.
Vocabulary	48.30	50.12	6.89
Spelling	29.34	29.10	9.56
Reading	43.66	45.30	9.19
Arithmetic Computation	29.30	30.25	8.18
Arithmetic Problem Solving	28.89	30.83	6.89
Arithmetic Total	59.19	61.75	14.17

Median Raw Scores for the Adult Basic Learning Examination by Educational Level

Test	Level 9	Level 10	Level 11	Level 12	Level 13
Vocabulary	40.83	42.63	44.33	45.27	50.12
Spelling	18.62	21.02	23.71	27.30	29.10
Reading	39.61	41.07	42.38	42.18	45.30
Arithmetic Computation	21.30	21.85	23.04	25.40	30.25
Arithmetic Problem Solving	23.39	24.90	26.00	26.93	30.83
Arithmetic Total	44.00	46.82	49.38	52.38	61.75

Summary Data for the Adult Basic Learning Examination by Educational Level

ABLE Level III

Education Level 9

N= 252

Test	Mean	Median	S.D.
Vocabulary	40.5	40.83	8.1
Spelling	20.1	18.62	9.6
Reading	39.3	39.61	8.5
Arithmetic Computation	21.5	21.30	7.7
Arithmetic Problem Solving	24.3	23.39	6.0
Arithmetic Total	45.8	44.00	12.4

Education Level 10

N= 479-480

Test	Mean	Median	S.D.
Vocabulary	41.6	42.63	8.2
Spelling	21.9	21.02	9.4
Reading	40.2	41.07	8.1
Arithmetic Computation	22.0	21.85	7.7
Arithmetic Problem Solving	25.2	24.90	6.3
Arithmetic Total	47.2	46.82	12.8

Education Level 11

N= 551

Test	Mean	Median	S.D.
Vocabulary	43.6	44.33	7.4
Spelling	24.6	23.71	9.7
Reading	41.5	42.38	8.2
Arithmetic Computation	23.4	23.04	7.8
Arithmetic Problem Solving	26.1	26.00	6.4
Arithmetic Total	49.49	49.38	13.2

Summary Data for the Adult Basic Learning Examination by Educational Level

ABLE Level II

Education Level 9

N= 264-268

Test	Mean	Median	S.D.
Vocabulary	37.6	39.57	7.4
Reading	50.3	51.78	6.6
Spelling	12.4	10.75	9.1
Arithmetic Computation	12.0	12.05	5.1
Arithmetic Problem Solving	7.0	6.69	3.2
Arithmetic Total	19.0	18.84	7.4

Education Level 10

N= 370-377

Test	Mean	Median	S.D.
Vocabulary	38.8	39.88	6.6
Reading	50.6	52.17	6.4
Spelling	13.6	11.64	8.9
Arithmetic Computation	12.3	12.19	5.2
Arithmetic Problem Solving	6.9	6.37	3.2
Arithmetic Total	19.2	18.83	7.6

Education Level 11

N= 266-272

Test	Mean	Median	S.D.
Vocabulary	38.9	40.35	7.2
Reading	50.6	52.11	6.9
Spelling	15.8	14.49	10.2
Arithmetic Computation	13.1	13.17	5.7
Arithmetic Problem Solving	7.4	6.95	3.7
Arithmetic Total	20.5	19.80	8.4

Summary Data for the Adult Basic Learning Examination by Educational Level

ABLE Level II

Education Level 12

N= 211-215

Test	Mean	Median	S.D.
Vocabulary	38.2	39.28	7.7
Reading	50.7	52.38	6.3
Spelling	18.8	18.38	10.6
Arithmetic Computation	13.5	13.38	5.9
Arithmetic Problem Solving	6.8	6.49	3.7
Arithmetic Total	20.4	19.54	8.6

Median Raw Scores for the Adult Basic Learning Examination by Educational Level

Test	Level 8	Level 9	Level 10	Level 11	Level 12
Vocabulary	38.86	39.57	39.88	40.35	39.28
Reading	52.04	51.78	52.17	52.11	52.38
Spelling	10.17	10.75	11.64	14.49	18.38
Arithmetic Computation	11.83	12.05	12.19	13.17	13.38
Arithmetic Problem Solving	6.53	6.69	6.37	6.95	6.49
Arithmetic Total	18.62	18.84	18.83	19.80	19.54